ABSTRACT OF THE DISCLOSURE

This invention provides an information output apparatus which outputs tactile information or the like corresponding to the surface state of an object as three-dimensional information together with image information, and allows the user to easily discriminate the surface material or the like of an image object in the image information.

A hybrid display unit of the information display apparatus of this invention has a structure formed by overlaying, e.g., a display panel used to display an image, and an unevenness output element group used to output the unevenness level of that image, and voltage values to be applied to respective unevenness output elements of the unevenness output element group are determined on the basis of, e.g., unevenness information stored in a memory. Therefore, material differences (smooth or rough touch) of images displayed on the display panel can be felt by touching unevenness output by the unevenness output elements.